REMARKS

After entry of this Amendment, the pending claims are: claims 1, 2, 4, 5, 9, 10 and 15-21. The Office Action dated December 14, 2007 has been carefully considered. Claims 1, 2, 9, 10, 15, 16 18 and 19 have been amended. Claims 3, 6-8 and 11-14 have been canceled. Claim 21 has been added. Support for the amendments to claims 1, 2, 9, 10, 15, 16, 18 and 19 and for newly added claim 21 can be found throughout the Specification and Drawings and specifically in paragraph Nos. 22, 23 and 29 and drawing Nos. 1, 3 and 4. No new matter has been added. Reconsideration and allowance of the present application in view of the above Amendments and the following Remarks is respectfully requested.

In the Office Action dated December 14, 2007, the Examiner:

- rejected claims 1-9, 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,755,829 to Bono ("Bono") in view of U.S. Patent No. 5,395,003 to Matsuda ("Matsuda") further in view of U.S. Patent No 5,989,254 to Katz ("Katz");

- rejected claims 11-15 and 18-20 under 35 U.S.C. 103(a) as being unpatentable over Bono in view Matsuda; and

- rejected claims 1-8, 10 and 16 under 35 U.S.C. 103(a) as being unpatentable over Bono in view of Matsuda further in view of U.S. Patent No. 6,090,111 to Nichols ("Nichols").

INDEPENDENT CLAIM 1

Independent claim 1 has been rejected as being unpatentable over Bono in view of Matsuda in further view of Katz. In addition, independent claim 1 has been rejected as being unpatentable over Bono in view of Matsuda in further view of Nichols. As amended, independent claim 1 recites, *inter alia* "the external surface of the connection element and the internal surface of the second cavity formed

in the sealing cap include complementary non-threaded bulges and depressions for securing the sealing cap to the connection element, the bulges and depressions providing a plurality of discrete axial latch positions parallel to the central axis, each successive latch position axially displacing the sealing cap over the connection element, the bulges and depressions extending continuously, concentrically, and non-threadingly around the central axis on the connection element external surface and the sealing cap internal surface."

The Examiner agrees that neither Bono, Katz, or Nichols, either alone or in combination, disclose, teach or suggest complementary non-threaded bulges and depressions for securing the sealing cap to the connection element, wherein the bulges and depressions provide a plurality of discrete axial latch positions parallel to the central axis, each successive latch position axially displacing the sealing cap over the connection element, as recited by independent claim 1. Instead the Examiner relies upon Matsuda to disclose non-threaded projections and recesses for providing a plurality of discrete axial latch positions parallel to the central axis. December 14, 2007 Office Action p. 4, ¶ 1. Applicant respectfully disagrees with the Examiner's assertion.

With Reference to Figure 2, Matsuda discloses an airtight soup container having a body 1, a cover 3, a channel-shaped edge portion piece 17 including a lower end portion 17A that contains a pair of grooves 19, 21, which match a pair of projections 9, 11 formed on the body 1. Matsuda cols. 3-4, ll. 37 – 35. The cover 3 includes an annular convex portion 25 that mates with an annular concave portion 15 of the body 1 to assist in creating the air-tight seal between the cover 3 and the body 1. If the cover 3 is not fully engaged with the body 1, the convex portion 25 does not mate with the concave portion 15

and the airtight soup container of Matsuda does not function as intended. Matsuda contains no disclosure, suggestion or teaching of discrete axial latch positions and any axial latch position of the cover 3 relative to the body 1 other than the fully engaged position defeats the airtight purpose of Matsuda. Therefore, Matsuda only discloses a design having a single axial position, which is the fully engaged position. Thus, Matsuda does not disclose, teach or suggest a plurality of discrete axial latch positions parallel to the central axis wherein each successive latch position axially displaces the sealing cap as recited by claim 1.

In addition, one having ordinary skill in the art would not modify the locking cap anchor of Bono with the air-tight soup container cover of Matsuda to construct the device of claim 1 of the present application including the connection element having a first channel passing through the connection element and the sealing cap having a second channel extending transversely therethrough, as well as the additional elements of amended claim 1. One having ordinary skill in the art would not modify the pedicle screw or locking cap anchor of Bono with the air-tight soup container cover of Matsuda, because the purpose of the Matsuda cover is to create an air-tight seal between the cap and bowl described in Matsuda and one having ordinary skill in the art would realize that mounting the air-tight cover of Matsuda onto the body of Bono would not serve the air-tight or spill-proof purpose of Matsuda, as there is no purpose for an air-tight cover for a pedicle screw. One having ordinary skill in the art would realize that the complicated structure of Matsuda to create the air-tight seal to prevent spillage from the container or the body of the pedicle screw of Bono would unnecessarily complicate the structure and construction of the device of Bono with no apparent advantage to offset the complication of the

structure. One having ordinary skill in the art would not make such a design change to complicate the structure of Bono by adding the air-tight sealing features of Matsuda, particularly upon realizing that such a structural change to the cap or cover provides no advantage for the modified device. Applicant respectfully submits that the only motivation for one having ordinary skill in the art to modify the device of Bono to include the air-tight cover of Matsuda is hindsight reconstruction of the claimed invention, which results in an improper reconstruction.

Based upon the above-listed arguments, Applicant respectfully submits that the combination of Matsuda with Bono and Katz or Nichols is improper and the 35 U.S.C. 103 rejections should be withdrawn. Allowance of amended, independent claim 1 is respectfully requested for at least the above-listed reasons.

Additionally, Matsuda is directed to a covered airtight soup container. As such, the disclosure of Matsuda is unrelated to the field of medical devices. "To rely on a reference under 35 U.S.C. 103, it must be analogous prior art." *See* MPEP 2141.01(a). "[A] reference in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, *logically would have commended itself to an inventor's attention* in considering his or her invention as a whole." *See KSR International co. v. Televlex Inc.,* 82 USPQ2d 1385, 1397 (2007) (*emphasis added*). It is respectfully submitted that the field in which Matsuda resides, airtight soup containers, is so remote from the claimed subject matter that it could not be considered reasonably pertinent and would not have logically commended itself to Applicant's attention when considering the claimed invention as a whole. An airtight container was not relevant to the invention.

Accordingly, it is respectfully submitted that the combination of Matsuda with Bono and Katz or Nichols is improper and the 35 U.S.C. 103 rejections should be withdrawn. Allowance of claim 1 is respectfully requested for at least this reason as well.

Furthermore, it is respectfully submitted that the Examiner has not identified any reason why a person of ordinary skill in the art would combined Matsuda with Bono and Katz or Nichols other than it would teach all of the elements of independent claim 1. *See KSR International co. v. Televlex Inc.,* 82 USPQ2d 1385, 1397 (2007) "[a] patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently known, in the prior art … important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does.") It is respectfully submitted that the Applicant through his own effort and expense derived the device as claimed in independent claim 1. It is respectfully submitted that without the benefit of the Applicant's disclosure, it would not be obvious for one of ordinary skill in the art to combine Matsuda with Bono and Katz or Nichols to include complementary non-threaded bulges and depressions for securing the sealing cap to the connection element wherein the bulges and depressions provide a plurality of discrete axial latch positions parallel to the central axis. If anything, Matsuda explicitly teaches away from the combination, in that, the purpose of the projections and recesses described in Matsuda is to provide an airtight container to "prevent soup from leaking" out of the container. Matsuda col. 1, ll 56-58. Matsuda discloses a container made of hard plastic with a lid made of soft plastic. Matsuda col 1. ll 56-58. Not only are these materials not suitable for use in the body, but the sealing cap of independent claim 1 requires an opening for receiving the connection element and a

second channel extending transversely to the central axis and opening towards the front end of the sealing cap. The openings, if integrated into Matsuda, destroy the entire purpose (*i.e.*, providing an airtight container) of using projections and recesses. *See Tec Air, Inc. v. Denso Manufacturing Michigan Inc.*, 192 F.3d 1353 (Fed. Cir. 1999) "[t]here is no suggestion to combine … if a reference teaches away from its combination with another source … 'A reference may be said to teach away when a person of ordinary skill, upon reading of the reference … would be lead in a direction divergent from the path that was taken by the applicant.'"

Accordingly, it is respectfully submitted that the combination of Matsuda with Bono and Katz or Nichols is improper and the 35 U.S.C. 103 rejections should be withdrawn. Allowance of claim 1 is respectfully requested for at least this reason as well.

For at least the above-identified reasons, it is respectfully submitted that Matsuda, Bono, Katz, and Nichols, whether alone or in combination, do not disclose, teach or suggest all of the limitations of independent claim 1. Thus, it is respectfully submitted that independent claim 1 is allowable over Matsuda, Bono, Katz, and Nichols. Withdrawal of these rejections and allowance of independent claim 1 is respectfully requested.

Furthermore, as claims 2, 4, 5, 9, 10 and 18 all depend from independent claim 1, it is submitted that these claims are equally allowable. Withdrawal of these rejections and allowance of claims 2, 4, 5, 9, 10 and 18 is also respectfully requested.

INDEPENDENT CLAIM 19

Independent claim 19 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Bono in view Matsuda. As amended, independent claim 19 recites, *inter alia*, a connection element having an external surface and a sealing cap having a second cavity including an internal surface, wherein the external surface of the connection element has a plurality of bulges formed thereon, the plurality of bulges positioned on planes that are generally perpendicular to the central axis and the internal surface of the second cavity formed in the sealing cap has a plurality of depressions formed therein, the plurality of depressions positioned on planes that are generally perpendicular to the central axis and complementary to the plurality of bulges such that when the sealing cap engages the connection element, each of the plurality of bulges of the connection element is operative to snap-fit into at least one of the plurality of depressions of the sealing cap, the bulges and depressions providing a plurality of discrete axial latch positions parallel to the central axis, each successive latch position axially displacing the sealing cap relative to the connection element, wherein the bulges and depressions extend continuously, concentrically, and non-threadingly around the central axis on the external surface of the connection element and the internal surface of the sealing cap, the bulges and depressions interrupted by the first and second channels and interrupted by the two slots on the sealing cap.

Thus, for reasons similar to those described above in connection with independent claim 1, it is respectfully submitted that Matsuda and Bono, whether alone or in combination, do not disclose, teach or suggest all of the limitations of independent claim 19. Thus, it is respectfully submitted that

independent claim 19 is allowable over Matsuda and Bono. Withdrawal of this rejection and allowance of independent claim 19 is respectfully requested.

Furthermore, as amended, independent claim 19 recites, *inter alia*, wherein the sealing cap further includes two slots arranged generally perpendicular to the second channel, the slots extending from the front end of the sealing cap toward the rear end. It is respectfully submitted that there is absolutely no disclosure, teaching or suggestion in Bono or Matsuda of providing two additional slots in the sealing cap. Moreover, it is respectfully submitted that providing two additional slots in the sealing cap is completely contrary to the explicit teaching of Matsuda which is directed to providing an airtight container to "prevent soup from leaking" out of the container. Matsuda col. 1, ll 56-58. Providing two additional slots in the sealing cap would completely destroy the stated purpose of Matsuda.

Accordingly, it is respectfully submitted that the combination of Matsuda and Bono is improper and the 35 U.S.C. 103 rejections should be withdrawn. Allowance of independent claim 19 is respectfully requested for at least this reason as well.

Furthermore, as dependent claim 20 depends from independent claim 19, it is submitted that dependent claim 20 is equally allowable. Withdrawal of this rejection and allowance of claim 20 is also respectfully requested.

NEWLY ADDED INDEPENDENT CLAIM 21

Newly added independent claim 21 recites, *inter alia*, a device for connecting a longitudinal carrier to a bone screw, the device comprising a connection element having an external surface and a

sealing cap having a second cavity opening at the front end for receiving the connection element and at least two slots arranged generally perpendicular to the second channel, the slots extending from the front end toward the rear end of the sealing cap, the external surface of the connection element and the internal surface of the second cavity formed in the sealing cap including at least first and second bulges and at least first and second complementary depressions for securing the sealing cap to the connection element, the bulges and depressions provide at least first and second axial positions of the sealing cap relative to the connection element, the bulges and depressions extend continuously, concentrically, and non-threadingly around the central axis on the external surface of the connection element and the internal surface of the sealing cap, the first and second positions are axially displaced from one another and the sealing cap is placed in the first position by displacing the sealing cap over the connection element such that the first bulge engages a first depression, the cap being movable from the first position to the second position by further displacing the sealing cap axially so that the first bulge engages a second depression and a second bulge engages the first depression.

Thus, for reasons similar to those described above in connection with independent claim 1, it is respectfully submitted that Matsuda and Bono, whether alone or in combination, do not disclose, teach or suggest all of the limitations of independent claim 21. Thus, it is respectfully submitted that independent claim 21 is allowable over Matsuda and Bono. Allowance of independent claim 21 is respectfully requested.

Furthermore, independent claim 21 recites, *inter alia*, the sealing cap further including at least two slots arranged generally perpendicular to the second channel, the slots extending from the front end toward the rear end of the sealing cap. It is respectfully submitted that there is absolutely no disclosure, teaching or suggestion in Bono or Matsuda of providing two additional slots in the sealing cap. Moreover, it is respectfully submitted that providing two additional slots in the sealing cap is completely contrary to the explicit teaching of Matsuda which is directed to providing an airtight container to "prevent soup from leaking" out of the container. Matsuda col. 1, ll 56-58. Providing two additional slots in the sealing cap would completely destroy the stated purpose of Matsuda.

Accordingly, it is respectfully submitted that independent claim 21 is allowable over Matsuda and Bono. Allowance of independent claim 21 is respectfully requested for at least this reason as well.

Furthermore, as claims 15-17 all depend from independent claim 21, it is submitted that these claims are equally allowable. Allowance of claims 15-17 is also respectfully requested.

CONCLUSION

A fee of $120.00 is believed due with this submission for the one month extension of time. The Commissioner is authorized to charge this and any other fee which may now or hereafter be due in this application to Deposit Account No. 19-4709.

In the event that there are any questions, or should additional information be required, please contact Applicant's attorney at the number listed below.

Respectfully submitted,

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/Giuseppe Molaro/
Giuseppe Molaro
Registration No. 52,039

For: Brian M. Rothery
Registration No. 35,340

Attorney for Applicant
Stroock & Stroock & Lavan LLP
180 Maiden Lane
New York, New York 10038
(212) 806-6114